

Appl. No. 10/711,739
Amdt. dated August 22, 2007
Reply to Office action of June 26, 2007

Amendments to the Drawings:

Please replace Figure 5 with the attached replacement sheet for Figure 5.

Attachment: Replacement Sheet

1 page

REMARKS

Claims 3-10 and 14-19 are rejected under 35 USC 112, first paragraph, as failing to comply with the enablement requirement. From claim 3 and claim 7, there are two different driving voltages, which is not shown in any figure or disclose. Hence there would be undue experimentation for one of skill in the art to make and use the invention. Claims 14 and 17 have the same problem, claims 4-6, 8-10, 15-16, and 18-19 fall with parent claim.

Applicant asserts that the claims 3 and 7 do not imply that there are two different driving voltages and therefore requests withdrawal of the 35 USC 112 second paragraph rejections of claims 3-10 and 14-19.

In particular, claim 2 states:

Claim 2. The method of claim 1 wherein in step (d), the controller outputs a driving voltage to control a movement of the sled actuator and/or the pickup head; the driving voltage is a function of the velocity and the acceleration of the sled actuator and/or the pickup head.

The limitations of claim 2 are clearly illustrated in Figure 3 and further illustrated in Figure 5. Note that in Figure 5 the driving voltage U is a function of the velocity V and the acceleration A . There should be no problem or confusion by a person skilled in the art to implement the circuit structure claimed in claim 2.

Next, claim 3 states:

Claim 3. The method of claim 2 wherein the driving voltage is influenced by a product of the velocity of the sled actuator and/or the pickup head and a first multiplier.

Applicant notes that both Figure 3 and Figure 5 again fully support all the limitations of

claim 3, and that claim 3 does not contradict in any way with the limitations disclosed in claim 2. For example, Figure 5 clearly shows the driving voltage U being influenced by a product of the velocity V of the sled actuator and/or the pickup head and a first multiplier KP. There should again be no problem or confusion by a person skilled in the art to implement the circuit structure claimed in claim 3.

Finally, claim 7 states:

Claim 7. The method of claim 2 wherein the driving voltage is influenced by a product of the acceleration of the sled actuator and/or the pickup head and a second multiplier.

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Applicant again notes that both Figure 3 and Figure 5 fully support all the limitations of claim 7, and that claim 7 does not contradict in any way with the limitations disclosed in claim 2 or claim 3 above. For example, Figure 5 clearly shows the driving voltage U being influenced by a product of the acceleration A of the sled actuator and/or the pickup head and a second multiplier KD. There should again be no problem or confusion by a person skilled in the art to implement the circuit structure claimed in claim 7.

Applicant finally notes that it is possible that the driving signal of claim 3 is the same as the driving signal of claim 7 as is illustrated in Figure 3 and Figure 5 of the present invention. In particular, the language utilized in claims 3 and 7 states “the driving signal being influenced by”, which should not be interpreted by the Examiner as “the driving signal being”. That is, a signal can be influenced by two different things. A signal being influenced by two different things is not the same as a signal being two different things. For at least the reason that the single driving signal of the present invention is influenced by two different parameters, applicant asserts that claims 3 and 7 should not be rejected as failing to comply with the enablement requirement. A similar argument also applies to claims 14 and 17. Withdrawal of the 35 USC 112 rejections to claims 3-10 and 14-19 is respectfully requested.

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The drawings are objected to because every feature must be shown including “the first

multiplier is a variable determined by the number of tracks remained to be crossed and the velocity of the sled actuator and/or the pickup head” and “the second multiplier is a variable determined by the number of tracks remained to be crossed and the velocity of the sled actuator and/or the pickup head” must be shown or the feature(s) canceled
5 **from the claims. No new matter should be entered.**

Figure 5 is amended to include the KD parameter generation and KP parameter generation, both parameters being “a variable determined by the number of tracks remained to be crossed (T) and the velocity of the sled actuator and/or the pickup head V”. Support can be found in paragraph 23 of the present invention. No new matter is entered. Withdrawal
10 of the objection to the drawings is respectfully requested.

Claims 1-2, 11-13 and 20 are rejected under 35 USC 102b as being anticipated by Hung et al. (US 6,606,282)

Hung et al. disclose extracting the residual track count (RTC) information, and then
15 according to a predetermined Vref and RTC function (see Figure 6), extracting a reference velocity. The values Vref and Vest are then utilized to control the sled actuator. (Column 3 lines 60-column 4 line 6). The acceleration discount factor indicated by the Examiner is determined according to the RTC value and is formed via a predetermined function (Figure 6) to thereby obtain an estimated factor. (see col. 4 lines 21-column 5 lines 13) Hung et al. also
20 disclose controlling the speed of the sled actuator according to the velocity profile shown in Figure 7 (column 5 lines 13-25) and the disclosed velocity profile is also predetermined.

However, in the present invention, the remaining track information T, velocity V, and acceleration information A is utilized to control the sled actuator, wherein the acceleration information A corresponds to the **real time** speed of the sled actuator. As disclosed in
25 paragraph [0023], the present invention extracts the velocity V and acceleration A of the sled actuator in real time to thereby adjust controlling parameters (e.g. Kd, and Kp) and generate the driving voltage U. The values corresponding to acceleration A and velocity V are real time values of the sled actuator, which is very different than the predetermined profile and

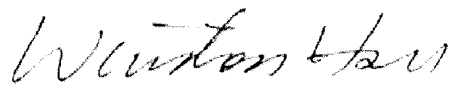
acceleration discount taught by Hung et al.

Applicant therefore asserts that the present invention as claimed should be found allowable with respect to the teachings of Hung et al. for at least the reason that the driving voltage U claimed by the present invention utilizes real time velocity V and acceleration A values to generate driving voltage U according to parameters Kd and Kp having better actual
5 real world quality (e.g., reduced interference). Withdrawal of the 35 USC 102 rejections of claims 1-2, 11-13 and 20 is respectfully requested. The dependent claims 3-10 and 14-19 should be found allowable for at least the same reasons as their base claims.

10 **Conclusion:**

Thus, all pending claims are submitted to be in condition for allowance with respect to the cited art for at least the reasons presented above. The Examiner is encouraged to telephone the undersigned if there are informalities that can be resolved in a phone conversation, or if the Examiner has any ideas or suggestions for further advancing the
15 prosecution of this case.

Sincerely yours,



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Note: Please leave a message in my voice mail if you need to talk to me. (The time in D.C. is 12 hours behind the Taiwan time, i.e. 9 AM in D.C. = 9 PM in Taiwan.)